

Addition,
Subtraction,
Multiplication,
Division ...
& the Gnarlies!

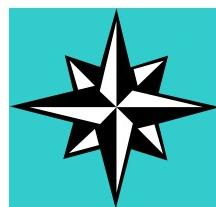
SuperSpeed Math^{2.0}

*Students have a blast
while they set and break
Personal Records!*

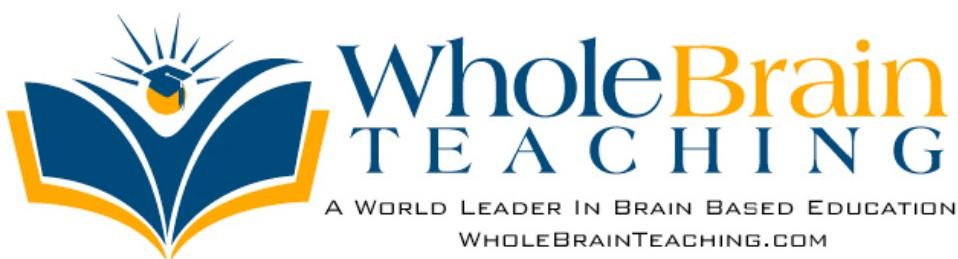
Now with Fractions!

SuperSpeed Math 2.0

Addition, Subtraction, Multiplication, Division ...
And the Gnarlies!
-- Special 2.0 Bonus: Fractions!!!



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INTRODUCTION

WHOLE BRAIN TEACHING is a grass roots education reform organization founded by three instructors (Chris Biffle, Jay Vanderfin, Chris Rekstad) in 1999. Since that time, we have presented free teaching seminars to over 20,000 educators representing over 700,000 students. A calendar of our teaching conferences is available at WholeBrainTeaching.com.

Videos illustrating our instructional strategies are available at:
www.YouTube.com/ChrisBiffle

In addition to offering education seminars, we also develop low cost teaching materials focused on core knowledge (state standards) and basic skills (reading, writing, critical thinking and math.) Central to our approach is a great deal of educational tomfoolery which produces some of the sweetest sounds teachers ever hear, on-task laughter.

SuperSpeed Math is a lively, entertaining game designed to teach beginning learners of any age math facts in addition, subtraction, multiplication, division and fractions using the numbers from 0-10. Versions of this game have been successfully classroom tested by thousands of students since 1999.

Because it begins with the simplest arithmetic operations and continues through the most difficult, SuperSpeed Math is appropriate for learners from kindergarten through 12th grade. The game also adapts superbly to the needs of English learners, including adults who are taking a beginning math course.

If your students play SuperSpeed Math for only a few minutes, several times a week, you'll see substantial improvements in overall mathematics accuracy; gains of 20% within a month are not uncommon.

SuperSpeed Math is so entertaining that teachers have used it as a reward for good behavior! Students work hard in class, to gain the privilege of playing SuperSpeed!!



THE SUPERSPEED GRIDS

As a representative of our approach, we'll focus the following on SuperSpeed Addition. The other math games, subtraction, multiplication, division and fractions, follow the same format. (You'll learn more about Gnarlies, the most common math errors, in a few moments.)

Except for “carrying”, all addition operations involve nothing more complex than adding the numbers from 0-10. And yet in every class, students make countless addition errors. Why? The reason is obvious: students have too little addition practice. Your class will not be able to flawlessly total columns of numbers until they can master adding two numbers. The more rapidly students can add (and perform the other three math operations, subtraction, multiplication and division), the greater their mathematics fluency and confidence.

SuperSpeed Addition (like the rest of SuperSpeed Math) is played with a grid of problems. There are only two levels, termed, appropriately enough, Level 1 and Level 2. Level 1 is easier; Level 2 is harder.

Each level is composed of a test and a set of answers.

Students work in pairs. One student orally takes the test while the other student checks the answers.

Look at the next page to see the first three rows of the test and answer grid from Level 1 of SuperSpeed Addition.

Here are the first three rows of the test and the answer grid from Level 1 for SuperSpeed Addition. Note that the test grid is identical to the answer grid, except, of course, that it lacks answers.

LEVEL 1: ADDITION TEST

	A	B	C	D	E	F	G	H	I	H	K
1	0 <u>+0</u>	0 <u>+1</u>	0 <u>+2</u>	0 <u>+3</u>	0 <u>+4</u>	0 <u>+5</u>	0 <u>+6</u>	0 <u>+7</u>	0 <u>+8</u>	0 <u>+9</u>	0 <u>+10</u>
2	1 <u>+0</u>	2 <u>+0</u>	3 <u>+0</u>	4 <u>+0</u>	5 <u>+0</u>	6 <u>+0</u>	7 <u>+0</u>	8 <u>+0</u>	9 <u>+0</u>	10 <u>+0</u>	11 <u>+0</u>
3	1 <u>+1</u>	1 <u>+2</u>	1 <u>+3</u>	1 <u>+4</u>	1 <u>+5</u>	1 <u>+6</u>	1 <u>+7</u>	1 <u>+8</u>	1 <u>+9</u>	1 <u>+10</u>	1 <u>+11</u>

LEVEL 1: ADDITION ANSWERS

	A	B	C	D	E	F	G	H	I	H	K
1	0 <u>+0</u> 0	0 <u>+1</u> 1	0 <u>+2</u> 2	0 <u>+3</u> 3	0 <u>+4</u> 4	0 <u>+5</u> 5	0 <u>+6</u> 6	0 <u>+7</u> 7	0 <u>+8</u> 8	0 <u>+9</u> 9	0 <u>+10</u> 10
2	1 <u>+0</u> 1	2 <u>+0</u> 2	3 <u>+0</u> 3	4 <u>+0</u> 4	5 <u>+0</u> 5	6 <u>+0</u> 6	7 <u>+0</u> 7	8 <u>+0</u> 8	9 <u>+0</u> 9	10 <u>+0</u> 10	11 <u>+0</u> 11
3	1 <u>+1</u> 2	1 <u>+2</u> 3	1 <u>+3</u> 4	1 <u>+4</u> 5	1 <u>+5</u> 6	1 <u>+6</u> 7	1 <u>+7</u> 8	1 <u>+8</u> 9	1 <u>+9</u> 10	1 <u>+10</u> 11	1 <u>+11</u> 12

On the next page you'll find, in reduced form, the entire Answer grid for Level 1.

Here, shrunk to fit this page, is the Answer grid for Level 1.

	A	B	C	D	E	F	G	H	I	H	K
1	0 +0 0	0 +1 1	0 +2 2	0 +3 3	0 +4 4	0 +5 5	0 +6 6	0 +7 7	0 +8 8	0 +9 9	0 +10 10
2	1 +0 1	2 +0 2	3 +0 3	4 +0 4	5 +0 5	6 +0 6	7 +0 7	8 +0 8	9 +0 9	10 +0 10	1 +1 2
3	1 +2 3	1 +3 4	1 +4 5	1 +5 6	1 +6 7	1 +7 8	1 +8 9	1 +9 10	1 +10 11	2 +1 3	3 +1 4
4	4 +1 5	5 +1 6	6 +1 7	7 +1 8	8 +1 9	9 +1 10	10 +1 11	2 +2 4	2 +3 5	2 +4 6	2 +5 7
5	2 +6 8	2 +7 9	2 +8 10	2 +9 11	2 +10 12	3 +2 5	4 +2 6	5 +2 7	6 +2 8	7 +2 9	8 +2 10
6	9 +2 11	10 +2 12	3 +3 6	3 +4 7	3 +5 8	3 +6 9	3 +7 10	3 +8 11	3 +9 12	3 +10 13	4 +3 7
7	5 +3 8	6 +3 9	7 +3 10	8 +3 11	9 +3 12	10 +3 13	4 +4 8	4 +5 9	4 +6 10	4 +7 11	4 +8 12
8	4 +9 13	4 +10 14	5 +4 9	6 +4 10	7 +4 11	8 +4 12	9 +4 13	10 +4 14	5 +5 10	5 +6 11	5 +7 12
9	5 +8 13	5 +9 14	5 +10 15	6 +5 11	7 +5 12	8 +5 13	9 +5 14	10 +5 15	6 +6 12	6 +7 13	6 +8 14
10	6 +9 15	6 +10 16	7 +6 13	8 +6 14	9 +6 15	10 +6 16	7 +7 14	7 +8 15	7 +9 16	7 +10 17	8 +7 15
11	9 +7 16	10 +7 17	8 +8 16	8 +9 17	8 +10 18	9 +8 17	10 +8 18	9 +9 18	9 +10 19	10 +9 19	10 +10 20

Every possible combination of addition problems 0-10 is included in numerical order. The problems move from simpler, adding 0, 1, 2, 3 to more complex, adding 6, 7, 8, 9. Note the shaded boxes of the 15 problems, the Gnarly 15, near the end.

The Gnarlies have been identified by college math instructors as the most common addition errors. The closer pairs of numbers approach 10 ($6 + 7$, $8 + 9$, etc.), the more likely students are to make an addition error. With one exception. Students seem to make fewer errors when they are adding doubles, $6 + 6$, $7 + 7$, $8 + 8$ and $9 + 9$.

Spend some time helping yours students master the Gnarlies ... there are only 15 in addition (and somewhat more in the other math operations.) When they learn there are only 15 problems that cause the majority of addition errors in college, they'll be motivated to focus especially hard on these challenging pairs. (Think about that. *There are only 15 addition problems that cause the majority of difficulty in higher grades ... let's rid the world of the Gnarlies!*)

On the next page, you'll find the first three rows of the Level 2 Addition grids.

Here are the first three rows of the Level 2 Addition grids.

LEVEL 2: ADDITION TEST

	A	B	C	D	E	F	G	H	I	J	K
1	7 +9 <u>—</u>	0 +1 <u>—</u>	8 +6 <u>—</u>	3 +6 <u>—</u>	7 +5 <u>—</u>	4 +4 <u>—</u>	7 +8 <u>—</u>	0 +7 <u>—</u>	6 +4 <u>—</u>	10 +5 <u>—</u>	9 +6 <u>—</u>
2	8 +4 <u>—</u>	6 +7 <u>—</u>	8 +8 <u>—</u>	8 +5 <u>—</u>	10 +8 <u>—</u>	6 +8 <u>—</u>	6 +2 <u>—</u>	6 +9 <u>—</u>	4 +7 <u>—</u>	8 +7 <u>—</u>	3 +8 <u>—</u>
3	1 +2 <u>—</u>	2 +8 <u>—</u>	7 +6 <u>—</u>	5 +10 <u>—</u>	8 +9 <u>—</u>	9 +10 <u>—</u>	10 +3 <u>—</u>	6 +5 <u>—</u>	9 +7 <u>—</u>	2 +1 <u>—</u>	7 +1 <u>—</u>

LEVEL 2: ADDITION TEST

	A	B	C	D	E	F	G	H	I	J	K
1	7 +9 <u>—</u>	0 +1 <u>—</u>	8 +6 <u>—</u>	3 +6 <u>—</u>	7 +5 <u>—</u>	4 +4 <u>—</u>	7 +8 <u>—</u>	0 +7 <u>—</u>	6 +4 <u>—</u>	10 +5 <u>—</u>	9 +6 <u>—</u>
2	8 +4 <u>—</u>	6 +7 <u>—</u>	8 +8 <u>—</u>	8 +5 <u>—</u>	10 +8 <u>—</u>	6 +8 <u>—</u>	6 +2 <u>—</u>	6 +9 <u>—</u>	4 +7 <u>—</u>	8 +7 <u>—</u>	3 +8 <u>—</u>
3	1 +2 <u>—</u>	2 +8 <u>—</u>	7 +6 <u>—</u>	5 +10 <u>—</u>	8 +9 <u>—</u>	9 +10 <u>—</u>	10 +3 <u>—</u>	6 +5 <u>—</u>	9 +7 <u>—</u>	2 +1 <u>—</u>	7 +1 <u>—</u>

Level 2 presents the same 121 addition problems as Level 1 *but in random order and the Gnarlies are much closer to the beginning*. When students master Level 2, they have mastered all the basic addition facts

and will have had plenty of practice adding the most troublesome pairs of numbers.

One final, and important note. When you hand out these grids to your students, print each Level on one page, back to back. Level 1 Test is on one side of the page; Level 1 Answers is on the other side of the same sheet. Same for Level 2 Test and Answers.



HOW TO PLAY SUPERSPEED MATH

Playing SuperSpeed Math is simple. We'll continue to use SuperSpeed Addition as our example.

The game is played in 60 second time periods, with students working in pairs. As quickly as possible, one student *orally says and solves* the questions on the Test; the other student checks the Answers. (It is very important the the student taking the test, say the problem and the answer, so that problem and answer is linked in the student's brain.)

Arrange your class in groups of twos. If you have an odd number of students, you will pair with the extra kid. Without telling your pupils, be sure that a weaker learner is always paired with a stronger learner.

Each student gets two 60 second attempts. Thus, if Juana and Paul are playing, Juana, looking at the test sheet, orally solves as many addition problems as possible in 60 seconds while Paul, looking at the answer sheet, orally corrects her mistakes. Then, Juana gets a second try and attempts to break her previous record. When Juana is finished, Paul gets two 60 second attempts; Juana orally corrects his mistakes.

The goal is for each player to solve as many math problems as possible in 60 seconds, setting and breaking personal records. Juana is not trying to beat Paul's record or vice versa. Juana's only focus is on improving her fastest time. Students are racing against themselves ... which is the fairest, most exciting race of all.

Emphasize to your class that "helpsies" is not only allowed but encouraged. If Juana doesn't know an answer, Paul immediately helps her. Players, because they are slowed down when they are corrected, soon understand that studying the problems on the answer sheet that cause them the most difficulty is the best way to improve their personal records.

Only three additional rules needs to be added.

1. *Before players begin they should mark a goal on the math grid; this indicates the problem they hope to complete by the end of 60 seconds.* Goal setting is not only a crucial feature in SuperSpeed ... it certainly makes the game even more exciting, but also, obviously, an important component in education and life.
2. *When players break personal records, they should place their score inside a personal record star on page 46.* Thus, for example, if Juana finishes problem C in row 8, she would write C8 in her personal record star. You will be surprised at how much your students enjoy creating, and sharing!, a visual record of their own achievements.
2. When students break their goal, the next time they play, they start one row down from their previous starting point. For example, let's say Juana starts at A1 on the test grid (the first problem on the first line). She gets to D4 in 60 seconds (the fourth problem on the fourth row.) She tries again starting at A1 and reaches D6, breaking her record. The next time she plays, she doesn't start at A1; she starts one row down at B1. In this way, students advance through all the problems. If they reach the last problem before time is up, they go back up to the top of page, or go on to the next Level.

Now, here is a very important point. Students love to play SuperSpeed Math because they love to strive for goals and to set and break personal records. Players are never competing against each other, but against their own previous best effort. Thus, the learning objective is set at exactly the right level, no matter a player's ability. The only standard Juana must exceed is the one she set for herself the last time she played. Until you try SuperSpeed Math in class, you won't believe the enthusiasm your students will have while playing. Students love the feeling of being record breakers, and the unique structure of SuperSpeed Math gives them this feeling over and over.

ADVANCED RULES

When students have mastered the simple rules above, we strongly suggest they use the following for missed problems.

1. When a player is taking a the test, she uses a pencil as a pointer. Whenever she misses a problem, she places a dot on the problem missed.
2. When a player misses a problem, her partner tells her the correct answer and says, “Go back two!” Thus, if Juana misses the problem at C8, she must go back two problems to A8. This forces her to remember the correct answer! The dotted problems are her personal gnarlies.
3. If a player, despite missing problems, breaks her record, she, as before, starts one row down.
4. When the instructor is satisfied that individual students, or the entire class, are making adequate progress, then students work on *Gnarlies Only*. These would include both the shaded problems and the personal Gnarlies that the individual student has dotted. The highest goal of SuperSpeed Math is for students to identify and master their own, personalized set of Gnarlies. When working on Gnarlies Only, students simply see how many they can answer correctly in a minute; there is no moving down a row because the Gnarlies are scattered all over the page.

As an example of these new rules, Juana using a pencil, puts a dot on each problem Paul tells her she missed. At each error, Paul tells Juana the correct answer and says, “go back two!” Every dotted problem is one of Juana’s personal gnarlies. If Juana breaks her old record, she begins one row down from her previous starting point.

When the instructor is satisfied that Juana is making satisfactory progress, she plays Gnarlies Only, seeing how many dotted and shaded Gnarlies she can solve correctly in a minute. As before, Paul has an Answer sheet and tells her to go back two whenever she misses a problem.



ADJUSTING FOR STRONGER AND WEAKER LEARNERS

Let's say that Juana is a math whiz and Paul isn't. If Juana can solve 121 addition problems in 60 seconds, going across the rows of Level 1, then the next time she plays she goes down the columns. As you remember from Level 1, the answers only fall in counting order when going across rows.

If Juana can answer all the Level 1 addition problems going down the columns, then when she gets to the end of the grid, she simply starts over. Yes, she can solve 121 addition problems in 60 seconds ... but how about 122?! In other words, you can make Level 1 as challenging as you wish, even for your math nerds.

At some point, you may decide to move Juana on to Level 2. This will present a new, significantly harder challenge. If she can solve all the addition problems set up in random order in 60 seconds, then, just as before, when she gets to the end, she starts over at the beginning.

In many cases you will find that students like Paul, a weaker learner, will set more personal records than students like Juana. It is easier to set and break personal records when you are a slow than when you are fast!

Isn't that wonderful? *When playing SuperSpeed Math, your weakest learners can be the biggest winners!!!!*

If you are a lower grade teacher or want to simplify the game, limit students to the first few rows of any of the SuperSpeed Level 1 Math grids (addition, subtraction, multiplication, division ... and the Gnarlies.) In general, rows 1-3 contain nothing but math problems involving 0, 1, 2, 3.

If you are a higher grade teacher or want to increase the difficulty of the game, either begin with Level 2 (the random collection of math problems) or limit your students to competing on the last four or five

rows of Level 1 (these rows contain the larger numbers and all the Gnarlies.)

If you decide to limit your students to a smaller set of numbers for either of the above reasons, then their task is simply to see how many times they can complete the assigned set in 60 seconds.

If you want to significantly increase the difficulty of the game, or any subset of the game, then tell students to subtract one from their score for each problem missed. Thus, if Juana completes 121 problems in 60 seconds, but misses 10 according to Paul's dots, then her personal record is 111 ($120 - 10 = 111$).

Playing SuperSpeed Math is an ideal reward for good behavior in class. Wouldn't you rather see your students eagerly mastering addition than giving them candy? The game literally takes a few minutes ... and the most common comment we hear from teachers is, "My class loves it!"

Students effortlessly receive hundreds of repetitions solving the most common addition problems while setting and breaking personal records. Even better than increasing math fluency, players of SuperSpeed Math are rewarded with one of the most deeply powerful lessons in education: *I can set and break personal records. I can always do better than my own previous best.*



ONE ON ONE TUTORIALS

It is easy to adapt SuperSpeed Math for students with special needs. When working one on one, you, a peer tutor, or any stronger learner takes the role of the weaker student's partner. For added excitement the stronger learner can make addition mistakes on purpose and complain about his/her math problems. If 60 seconds is too long a time period, shorten the game to a minute or even 30 seconds. When the weaker learner breaks his or her record, loudly celebrate; the stronger learner should demand an equally rowdy celebration when he or she breaks a record. Kids love to make a racket.



THE GNARLIES

As noted earlier, the Gnarlies are the most common math errors. College teachers report that the numbers 6, 7, 8 and 9 cause students the most difficulty, no matter whether they are adding, subtracting, multiplying, dividing or reducing fractions. Thus, each SuperSpeed grid contains its own set of Gnarlies. In Level 1, the Gnarlies occur near the bottom of the grid; in Level 2, where the math problems are randomly distributed, the Gnarlies have all magically gravitated toward the beginning of the grid where students will receive the most practice... gosh, those dang Gnarlies.

After the grids for addition, subtraction, multiplication and division, SuperSpeed Math concludes with two surprises.

Yes, you've guessed it. We finish with two grids, Level 1 and Level 2, of nothing but addition, subtraction, multiplication and division Gnarlies... and even worse, Level 2 has these horrible problems randomly mixed! Oh, those dang, dang Gnarlies.

(See the next chapter for a description of SuperSpeed Math 2.0 ... fractions!)

If you want to produce a high level of math fitness in your class, we recommend the following weekly schedule:

- Monday: SuperSpeed Addition
- Tuesday: SuperSpeed Subtraction
- Wednesday: SuperSpeed Multiplication
- Thursday: SuperSpeed Division
- Friday: SuperSpeed Gnarlies and Fractions

Move your students from Level 1 to Level 2 as you think best. Tailor the game to your needs. Use some or all the rows of each grid ...

lengthen or shorten the timed periods as necessary. Dream up wacky, hilarious ways to celebrate students breaking personal records.

One last, but important thought.

We in Whole Brain Teaching believe that teachers and students should not only set personal but also class goals. We suggest that you set your class goal, for each time they play SuperSpeed at, initially, 50% of your students breaking a personal record. The class as a whole should have a reward, a small one, whenever this goal is achieved. For example, everyone, even the non-record breakers, should receive 1 point extra credit, or one minute more of free time at the end of the day. When the 50% goal is routinely achieved, then raise the bar to 60% and eventually 75% or higher. We want to teach our students that the success of one, effects many others ... and the success of many, can influence one. Thus, playing SuperSpeed Math creates a powerful learning community, in which all players benefit from group record breaking.

We'd love to hear your feedback about SuperSpeed Math.

Please send comments to me, Chris Biffle, at

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FRACTIONS

SuperSpeed Math 2.0 contains two new challenges, Fractions Level 1 and Fractions Level 2 (see pages 42-45). The Fractions levels are played the same way as the other SuperSpeed Math games. Level 1 Fractions are in numerical order; Level 2 Fractions are in random order; two students work together, with each student trying to break his or her personal records; gnarlies are dotted; personal records are recorded.

All the fraction problems involve the key task of deciding whether or not to reduce a fraction. Thus, students confront $\frac{1}{2}$, $\frac{2}{4}$, $\frac{10}{8}$ and must reduce the fraction, if possible, to its simplest terms. As with all the other SuperSpeed Math levels, the student should say the problem “two fourths” and then the answer “one half.” This firmly imprints the correct math relationship in the student’s mind.



SUPER SPEED ADDITION LEVEL 1: TEST

	A	B	C	D	E	F	G	H	I	J	K
1	0 <u>+0</u>	0 <u>+1</u>	0 <u>+2</u>	0 <u>+3</u>	0 <u>+4</u>	0 <u>+5</u>	0 <u>+6</u>	0 <u>+7</u>	0 <u>+8</u>	0 <u>+9</u>	0 <u>+10</u>
2	1 <u>+0</u>	2 <u>+0</u>	3 <u>+0</u>	4 <u>+0</u>	5 <u>+0</u>	6 <u>+0</u>	7 <u>+0</u>	8 <u>+0</u>	9 <u>+0</u>	10 <u>+0</u>	1 <u>+1</u>
3	1 <u>+2</u>	1 <u>+3</u>	1 <u>+4</u>	1 <u>+5</u>	1 <u>+6</u>	1 <u>+7</u>	1 <u>+8</u>	1 <u>+9</u>	1 <u>+10</u>	2 <u>+1</u>	3 <u>+1</u>
4	4 <u>+1</u>	5 <u>+1</u>	6 <u>+1</u>	7 <u>+1</u>	8 <u>+1</u>	9 <u>+1</u>	10 <u>+1</u>	2 <u>+2</u>	2 <u>+3</u>	2 <u>+4</u>	2 <u>+5</u>
5	2 <u>+6</u>	2 <u>+7</u>	2 <u>+8</u>	2 <u>+9</u>	2 <u>+10</u>	3 <u>+2</u>	4 <u>+2</u>	5 <u>+2</u>	6 <u>+2</u>	7 <u>+2</u>	8 <u>+2</u>
6	9 <u>+2</u>	10 <u>+2</u>	3 <u>+3</u>	3 <u>+4</u>	3 <u>+5</u>	3 <u>+6</u>	3 <u>+7</u>	3 <u>+8</u>	3 <u>+9</u>	3 <u>+10</u>	4 <u>+3</u>
7	5 <u>+3</u>	6 <u>+3</u>	7 <u>+3</u>	8 <u>+3</u>	9 <u>+3</u>	10 <u>+3</u>	4 <u>+4</u>	4 <u>+5</u>	4 <u>+6</u>	4 <u>+7</u>	4 <u>+8</u>
8	4 <u>+9</u>	4 <u>+10</u>	5 <u>+4</u>	6 <u>+4</u>	7 <u>+4</u>	8 <u>+4</u>	9 <u>+4</u>	10 <u>+4</u>	5 <u>+5</u>	5 <u>+6</u>	5 <u>+7</u>
9	5 <u>+8</u>	5 <u>+9</u>	5 <u>+10</u>	6 <u>+5</u>	7 <u>+5</u>	8 <u>+5</u>	9 <u>+5</u>	10 <u>+5</u>	6 <u>+6</u>	6 <u>+7</u>	6 <u>+8</u>
10	6 <u>+9</u>	6 <u>+10</u>	7 <u>+6</u>	8 <u>+6</u>	9 <u>+6</u>	10 <u>+6</u>	7 <u>+7</u>	7 <u>+8</u>	7 <u>+9</u>	7 <u>+10</u>	8 <u>+7</u>
11	9 <u>+7</u>	10 <u>+7</u>	8 <u>+8</u>	8 <u>+9</u>	8 <u>+10</u>	9 <u>+8</u>	10 <u>+8</u>	9 <u>+9</u>	9 <u>+10</u>	10 <u>+9</u>	10 <u>+10</u>



SUPERSPEED ADDITION LEVEL 1: ANSWERS

	A	B	C	D	E	F	G	H	I	J	K
1	0 +0 0	0 +1 1	0 +2 2	0 +3 3	0 +4 4	0 +5 5	0 +6 6	0 +7 7	0 +8 8	0 +9 9	0 +10 10
2	1 +0 1	2 +0 2	3 +0 3	4 +0 4	5 +0 5	6 +0 6	7 +0 7	8 +0 8	9 +0 9	10 +0 10	1 +1 2
3	1 +2 3	1 +3 4	1 +4 5	1 +5 6	1 +6 7	1 +7 8	1 +8 9	1 +9 10	1 +10 11	2 +1 3	3 +1 4
4	4 +1 5	5 +1 6	6 +1 7	7 +1 8	8 +1 9	9 +1 10	10 +1 11	2 +2 4	2 +3 5	2 +4 6	2 +5 7
5	2 +6 8	2 +7 9	2 +8 10	2 +9 11	2 +10 12	3 +2 5	4 +2 6	5 +2 7	6 +2 8	7 +2 9	8 +2 10
6	9 +2 11	10 +2 12	3 +3 6	3 +4 7	3 +5 8	3 +6 9	3 +7 10	3 +8 11	3 +9 12	3 +10 13	4 +3 7
7	5 +3 8	6 +3 9	7 +3 10	8 +3 11	9 +3 12	10 +3 13	4 +4 8	4 +5 9	4 +6 10	4 +7 11	4 +8 12
8	4 +9 13	4 +10 14	5 +4 9	6 +4 10	7 +4 11	8 +4 12	9 +4 13	10 +4 14	5 +5 10	5 +6 11	5 +7 12
9	5 +8 13	5 +9 14	5 +10 15	6 +5 11	7 +5 12	8 +5 13	9 +5 14	10 +5 15	6 +6 12	6 +7 13	6 +8 14
10	6 +9 15	6 +10 16	7 +6 13	8 +6 14	9 +6 15	10 +6 16	7 +7 14	7 +8 15	7 +9 16	7 +10 17	8 +7 15
11	9 +7 16	10 +7 17	8 +8 16	8 +9 17	8 +10 18	9 +8 17	10 +8 18	9 +9 18	9 +10 19	10 +9 19	10 +10 20



SUPERSPEED ADDITION LEVEL 2: TEST

	A	B	C	D	E	F	G	H	I	J	K
1	7 +9	0 +1	8 +6	3 +6	7 +5	4 +4	7 +8	0 +7	6 +4	10 +5	9 +6
2	8 +4	6 +7	8 +8	8 +5	10 +8	6 +8	6 +2	6 +9	4 +7	8 +7	3 +8
3	1 +2	2 +8	7 +6	5 +10	8 +9	9 +10	10 +3	6 +5	9 +7	2 +1	7 +1
4	4 +1	2 +5	6 +1	9 +8	9 +4	9 +1	10 +1	9 +9	2 +3	8 +0	4 +10
5	2 +6	2 +7	7 +4	2 +9	1 +9	3 +2	4 +8	5 +2	7 +0	7 +2	8 +2
6	9 +2	10 +2	0 +9	3 +4	3 +5	0 +2	3 +7	10 +9	3 +9	1 +4	4 +3
7	5 +3	6 +3	2 +4	8 +3	1 +3	1 +7	0 +4	4 +5	4 +6	0 +6	5 +1
8	4 +9	5 +6	5 +4	0 +10	1 +6	1 +8	1 +1	10 +4	7 +10	0 +0	5 +7
9	5 +8	5 +9	3 +10	9 +3	0 +3	1 +0	9 +5	0 +8	6 +6	8 +1	1 +5
10	10 +0	6 +10	3 +0	1 +10	5 +0	10 +6	7 +7	2 +2	5 +5	3 +1	9 +0
11	6 +0	10 +7	2 +0	7 +3	8 +10	4 +2	4 +0	2 +10	3 +3	0 +5	10 +10



SUPERSPEED ADDITION LEVEL 2: ANSWERS

	A	B	C	D	E	F	G	H	I	J	K
1	7 +9 16	0 +1 1	8 +6 14	3 +6 9	7 +5 12	4 +4 8	7 +8 15	0 +7 7	6 +4 10	10 +5 15	9 +6 15
2	8 +4 12	6 +7 13	8 +8 16	8 +5 13	10 +8 18	6 +8 14	6 +2 8	6 +9 15	4 +7 11	8 +7 15	3 +8 11
3	1 +2 3	2 +8 10	7 +6 13	5 +10 15	8 +9 17	9 +10 19	10 +3 13	6 +5 11	9 +7 16	2 +1 3	7 +1 8
4	4 +1 5	2 +5 7	6 +1 7	9 +8 17	9 +4 13	9 +1 10	10 +1 11	9 +9 18	2 +3 5	8 +0 8	4 +10 14
5	2 +6 8	2 +7 9	7 +4 11	2 +9 11	1 +9 10	3 +2 5	4 +8 12	5 +2 7	7 +0 7	7 +2 9	8 +2 10
6	9 +2 11	10 +2 12	0 +9 9	3 +4 7	3 +5 8	0 +2 2	3 +7 10	10 +9 19	3 +9 12	1 +4 5	4 +3 7
7	5 +3 8	6 +3 9	2 +4 6	8 +3 11	1 +3 4	1 +7 8	0 +4 4	4 +5 9	4 +6 10	0 +6 6	5 +1 6
8	4 +9 13	5 +6 11	5 +4 9	0 +10 10	1 +6 7	1 +8 9	1 +1 2	10 +4 14	7 +10 17	0 +0 0	5 +7 12
9	5 +8 13	5 +9 14	3 +10 13	9 +3 12	0 +3 3	1 +0 1	9 +5 14	0 +8 8	6 +6 12	8 +1 9	1 +5 6
10	10 +0 10	6 +10 16	3 +0 3	1 +10 11	5 +0 5	10 +6 16	7 +7 14	2 +2 4	5 +5 10	3 +1 4	9 +0 9
11	6 +0 6	10 +7 17	2 +0 2	7 +3 10	8 +10 18	4 +2 6	4 +0 4	2 +10 12	3 +3 6	0 +5 5	10 +10 20



SUPERSPEED SUBTRACTION LEVEL 1: TEST

	A	B	C	D	E	F	G	H	I	J	K
1	0 <u>-0</u>	1 <u>-0</u>	2 <u>-0</u>	3 <u>-0</u>	4 <u>-0</u>	5 <u>-0</u>	6 <u>-0</u>	7 <u>-0</u>	8 <u>-0</u>	9 <u>-0</u>	10 <u>-0</u>
2	1 <u>-1</u>	2 <u>-1</u>	3 <u>-1</u>	4 <u>-1</u>	5 <u>-1</u>	6 <u>-1</u>	7 <u>-1</u>	8 <u>-1</u>	9 <u>-1</u>	10 <u>-1</u>	2 <u>-2</u>
3	3 <u>-2</u>	4 <u>-2</u>	5 <u>-2</u>	6 <u>-2</u>	7 <u>-2</u>	8 <u>-2</u>	9 <u>-2</u>	10 <u>-2</u>	3 <u>-3</u>	4 <u>-3</u>	5 <u>-3</u>
4	6 <u>-3</u>	7 <u>-3</u>	8 <u>-3</u>	9 <u>-3</u>	10 <u>-3</u>	4 <u>-4</u>	5 <u>-4</u>	6 <u>-4</u>	7 <u>-4</u>	8 <u>-4</u>	9 <u>-4</u>
5	10 <u>-4</u>	5 <u>-5</u>	6 <u>-5</u>	7 <u>-5</u>	8 <u>-5</u>	9 <u>-5</u>	10 <u>-5</u>	6 <u>-6</u>	7 <u>-6</u>	8 <u>-6</u>	9 <u>-6</u>
6	10 <u>-6</u>	7 <u>-7</u>	8 <u>-7</u>	9 <u>-7</u>	10 <u>-7</u>	8 <u>-8</u>	9 <u>-8</u>	10 <u>-8</u>	9 <u>-9</u>	10 <u>-9</u>	10 <u>-10</u>
7	20 <u>-10</u>	20 <u>-9</u>	20 <u>-8</u>	20 <u>-7</u>	20 <u>-6</u>	19 <u>-10</u>	19 <u>-9</u>	19 <u>-8</u>	19 <u>-7</u>	19 <u>-6</u>	18 <u>-10</u>
8	18 <u>-9</u>	18 <u>-8</u>	18 <u>-7</u>	18 <u>-6</u>	17 <u>-10</u>	17 <u>-9</u>	17 <u>-8</u>	17 <u>-7</u>	17 <u>-6</u>	16 <u>-10</u>	16 <u>-9</u>
9	16 <u>-8</u>	16 <u>-7</u>	16 <u>-6</u>	15 <u>-10</u>	15 <u>-9</u>	15 <u>-8</u>	15 <u>-7</u>	15 <u>-6</u>	14 <u>-10</u>	14 <u>-9</u>	14 <u>-8</u>
10	14 <u>-7</u>	14 <u>-6</u>	13 <u>-10</u>	13 <u>-9</u>	13 <u>-8</u>	13 <u>-7</u>	13 <u>-6</u>	12 <u>-10</u>	12 <u>-9</u>	12 <u>-8</u>	12 <u>-7</u>
11	12 <u>-6</u>	11 <u>-10</u>	11 <u>-9</u>	11 <u>-8</u>	11 <u>-7</u>	11 <u>-6</u>	11 <u>-5</u>	11 <u>-4</u>	11 <u>-3</u>	11 <u>-2</u>	11 <u>-1</u>



SUPERSPEED SUBTRACTION LEVEL 1: ANSWERS

	A	B	C	D	E	F	G	H	I	J	K
1	0 -0 0	1 -0 1	2 -0 2	3 -0 3	4 -0 4	5 -0 5	6 -0 6	7 -0 7	8 -0 8	9 -0 9	10 -0 10
2	1 -1 0	2 -1 1	3 -1 2	4 -1 3	5 -1 4	6 -1 5	7 -1 6	8 -1 7	9 -1 8	10 -1 9	2 -2 0
3	3 -2 1	4 -2 2	5 -2 3	6 -2 4	7 -2 5	8 -2 6	9 -2 7	10 -2 8	3 -3 0	4 -3 1	5 -3 2
4	6 -3 3	7 -3 4	8 -3 5	9 -3 6	10 -3 7	4 -4 0	5 -4 1	6 -4 2	7 -4 3	8 -4 4	9 -4 5
5	10 -4 6	5 -5 0	6 -5 1	7 -5 2	8 -5 3	9 -5 4	10 -5 5	6 -6 0	7 -6 1	8 -6 2	9 -6 3
6	10 -6 4	7 -7 0	8 -7 1	9 -7 2	10 -7 3	8 -8 0	9 -8 1	10 -8 2	9 -9 0	10 -9 1	10 -10 0
7	20 -10 10	20 -9 11	20 -8 12	20 -7 13	20 -6 14	19 -10 9	19 -9 10	19 -8 11	19 -7 12	19 -6 13	18 -10 8
8	18 -9 9	18 -8 10	18 -7 11	18 -6 12	17 -10 7	17 -9 8	17 -8 9	17 -7 10	17 -6 11	16 -10 6	16 -9 7
9	16 -8 8	16 -7 9	16 -6 10	15 -10 5	15 -9 6	15 -8 7	15 -7 8	15 -6 9	14 -10 4	14 -9 5	14 -8 6
10	14 -7 7	14 -6 8	13 -10 3	13 -9 4	13 -8 5	13 -7 6	13 -6 7	12 -10 2	12 -9 3	12 -8 4	12 -7 5
11	12 -6 6	11 -10 1	11 -9 2	11 -8 3	11 -7 4	11 -6 5	11 -5 6	11 -4 7	11 -3 8	11 -2 9	11 -1 10



SUPERSPEED SUBTRACTION LEVEL 2: TEST

	A	B	C	D	E	F	G	H	I	J	K
1	19 -7	1 -0	19 -6	11 -9	18 -9	17 -6	20 -8	7 -0	20 -6	9 -0	17 -9
2	1 -1	15 -6	3 -1	14 -8	11 -2	18 -6	4 -4	20 -7	9 -1	17 -8	2 -2
3	16 -9	4 -2	2 -0	6 -2	0 -0	2 -1	17 -10	10 -2	7 -5	4 -3	16 -7
4	6 -3	15 -9	8 -3	12 -8	10 -3	15 -7	5 -4	13 -8	8 -4	14 -9	9 -4
5	10 -4	5 -5	14 -8	3 -2	15 -8	9 -5	13 -7	6 -6	13 -9	8 -6	9 -6
6	10 -6	7 -7	8 -7	12 -10	10 -7	8 -8	9 -8	10 -8	9 -9	13 -6	10 -10
7	20 -10	20 -9	8 -1	17 -7	10 -1	19 -10	19 -9	19 -8	5 -0	18 -10	12 -7
8	6 -1	7 -1	6 -5	11 -4	8 -2	5 -3	18 -7	10 -0	6 -0	16 -10	7 -3
9	16 -8	3 -3	9 -7	9 -2	14 -10	7 -4	10 -5	5 -1	7 -2	4 -1	9 -3
10	14 -7	11 -6	16 -6	10 -9	7 -6	6 -4	3 -0	15 -10	12 -9	8 -5	13 -10
11	12 -6	11 -10	18 -8	11 -8	11 -7	8 -0	11 -5	4 -0	11 -3	5 -2	11 -1



SUPERSPEED SUBTRACTION LEVEL 2: ANSWERS

	A	B	C	D	E	F	G	H	I	J	K
1	19 -7 12	1 -0 1	19 -6 13	11 -9 2	18 -9 9	17 -6 11	20 -8 12	7 -0 7	20 -6 14	9 -0 9	17 -9 8
2	1 -1 0	15 -6 9	3 -1 2	14 -8 6	11 -2 9	18 -6 12	4 -4 0	20 -7 13	9 -1 8	17 -8 9	2 -2 0
3	16 -9 7	4 -2 2	2 -0 2	6 -2 4	0 -0 0	2 -1 1	17 -10 7	10 -2 8	7 -5 2	4 -3 1	16 -7 9
4	6 -3 3	15 -9 6	8 -3 5	12 -8 4	10 -3 7	15 -7 8	5 -4 1	13 -8 5	8 -4 4	14 -9 5	9 -4 5
5	10 -4 6	5 -5 0	14 -8 6	3 -2 1	15 -8 7	9 -5 4	13 -7 6	6 -6 0	13 -9 4	8 -6 2	9 -6 3
6	10 -6 4	7 -7 0	8 -7 1	12 -10 2	10 -7 3	8 -8 0	9 -8 1	10 -8 2	9 -9 0	13 -6 7	10 -10 0
7	20 -10 10	20 -9 11	8 -1 7	17 -7 10	10 -1 9	19 -10 9	19 -9 10	19 -8 11	5 -0 5	18 -10 8	12 -7 5
8	6 -1 5	7 -1 6	6 -5 1	11 -4 7	8 -2 6	5 -3 2	18 -7 11	10 -0 10	6 -0 6	16 -10 6	7 -3 4
9	16 -8 8	3 -3 0	9 -7 2	9 -2 7	14 -10 4	7 -4 3	10 -5 5	5 -1 4	7 -2 5	4 -1 3	9 -3 6
10	14 -7 7	11 -6 5	16 -6 10	10 -9 1	7 -6 1	6 -4 2	3 -0 3	15 -10 5	12 -9 3	8 -5 3	13 -10 3
11	12 -6 6	11 -10 1	18 -8 10	11 -8 3	11 -7 4	8 -0 8	11 -5 6	4 -0 4	11 -3 8	5 -2 3	11 -1 10



SUPERSPEED MULTIPLICATION LEVEL 1: TEST

	A	B	C	D	E	F	G	H	I	J	K
1	0 <u>x0</u>	0 <u>x1</u>	0 <u>x2</u>	0 <u>x3</u>	0 <u>x4</u>	0 <u>x5</u>	0 <u>x6</u>	0 <u>x7</u>	0 <u>x8</u>	0 <u>x9</u>	0 <u>x10</u>
2	1 <u>x0</u>	2 <u>x0</u>	3 <u>x0</u>	4 <u>x0</u>	5 <u>x0</u>	6 <u>x0</u>	7 <u>x0</u>	8 <u>x0</u>	9 <u>x0</u>	10 <u>x0</u>	1 <u>x1</u>
3	1 <u>x2</u>	1 <u>x3</u>	1 <u>x4</u>	1 <u>x5</u>	1 <u>x6</u>	1 <u>x7</u>	1 <u>x8</u>	1 <u>x9</u>	1 <u>x10</u>	2 <u>x1</u>	3 <u>x1</u>
4	4 <u>x1</u>	5 <u>x1</u>	6 <u>x1</u>	7 <u>x1</u>	8 <u>x1</u>	9 <u>x1</u>	10 <u>x1</u>	2 <u>x2</u>	2 <u>x3</u>	2 <u>x4</u>	2 <u>x5</u>
5	2 <u>x6</u>	2 <u>x7</u>	2 <u>x8</u>	2 <u>x9</u>	2 <u>x10</u>	3 <u>x2</u>	4 <u>x2</u>	5 <u>x2</u>	6 <u>x2</u>	7 <u>x2</u>	8 <u>x2</u>
6	9 <u>x2</u>	10 <u>x2</u>	3 <u>x3</u>	3 <u>x4</u>	3 <u>x5</u>	3 <u>x6</u>	3 <u>x7</u>	3 <u>x8</u>	3 <u>x9</u>	3 <u>x10</u>	4 <u>x3</u>
7	5 <u>x3</u>	6 <u>x3</u>	7 <u>x3</u>	8 <u>x3</u>	9 <u>x3</u>	10 <u>x3</u>	4 <u>x4</u>	4 <u>x5</u>	4 <u>x6</u>	4 <u>x7</u>	4 <u>x8</u>
8	4 <u>x9</u>	4 <u>x10</u>	5 <u>x4</u>	6 <u>x4</u>	7 <u>x4</u>	8 <u>x4</u>	9 <u>x4</u>	10 <u>x4</u>	5 <u>x5</u>	5 <u>x6</u>	5 <u>x7</u>
9	5 <u>x8</u>	5 <u>x9</u>	5 <u>x10</u>	6 <u>x5</u>	7 <u>x5</u>	8 <u>x5</u>	9 <u>x5</u>	10 <u>x5</u>	6 <u>x6</u>	6 <u>x7</u>	6 <u>x8</u>
10	6 <u>x9</u>	6 <u>x10</u>	7 <u>x6</u>	8 <u>x6</u>	9 <u>x6</u>	10 <u>x6</u>	7 <u>x7</u>	7 <u>x8</u>	7 <u>x9</u>	7 <u>x10</u>	8 <u>x7</u>
11	9 <u>x7</u>	10 <u>x7</u>	8 <u>x8</u>	8 <u>x9</u>	8 <u>x10</u>	9 <u>x8</u>	10 <u>x8</u>	9 <u>x9</u>	9 <u>x10</u>	10 <u>x9</u>	10 <u>x10</u>



SUPERSPEED MULTIPLICATION LEVEL 1: ANSWERS

	A	B	C	D	E	F	G	H	I	J	K
1	0 $\underline{x0}$ 0	0 $\underline{x1}$ 0	0 $\underline{x2}$ 0	0 $\underline{x3}$ 0	0 $\underline{x4}$ 0	0 $\underline{x5}$ 0	0 $\underline{x6}$ 0	0 $\underline{x7}$ 0	0 $\underline{x8}$ 0	0 $\underline{x9}$ 0	0 $\underline{x10}$ 0
2	1 $\underline{x0}$ 0	2 $\underline{x0}$ 0	3 $\underline{x0}$ 0	4 $\underline{x0}$ 0	5 $\underline{x0}$ 0	6 $\underline{x0}$ 0	7 $\underline{x0}$ 0	8 $\underline{x0}$ 0	9 $\underline{x0}$ 0	10 $\underline{x0}$ 0	1 $\underline{x1}$ 1
3	1 $\underline{x2}$ 2	1 $\underline{x3}$ 3	1 $\underline{x4}$ 4	1 $\underline{x5}$ 5	1 $\underline{x6}$ 6	1 $\underline{x7}$ 7	1 $\underline{x8}$ 8	1 $\underline{x9}$ 9	1 $\underline{x10}$ 10	2 $\underline{x1}$ 2	3 $\underline{x1}$ 3
4	4 $\underline{x1}$ 4	5 $\underline{x1}$ 5	6 $\underline{x1}$ 6	7 $\underline{x1}$ 7	8 $\underline{x1}$ 8	9 $\underline{x1}$ 9	10 $\underline{x1}$ 10	2 $\underline{x2}$ 4	2 $\underline{x3}$ 6	2 $\underline{x4}$ 8	2 $\underline{x5}$ 10
5	2 $\underline{x6}$ 12	2 $\underline{x7}$ 14	2 $\underline{x8}$ 16	2 $\underline{x9}$ 18	2 $\underline{x10}$ 20	3 $\underline{x2}$ 6	4 $\underline{x2}$ 8	5 $\underline{x2}$ 10	6 $\underline{x2}$ 12	7 $\underline{x2}$ 14	8 $\underline{x2}$ 16
6	9 $\underline{x2}$ 18	10 $\underline{x2}$ 20	3 $\underline{x3}$ 9	3 $\underline{x4}$ 12	3 $\underline{x5}$ 15	3 $\underline{x6}$ 18	3 $\underline{x7}$ 21	3 $\underline{x8}$ 24	3 $\underline{x9}$ 27	3 $\underline{x10}$ 30	4 $\underline{x3}$ 12
7	5 $\underline{x3}$ 15	6 $\underline{x3}$ 18	7 $\underline{x3}$ 21	8 $\underline{x3}$ 24	9 $\underline{x3}$ 27	10 $\underline{x3}$ 30	4 $\underline{x4}$ 16	4 $\underline{x5}$ 20	4 $\underline{x6}$ 24	4 $\underline{x7}$ 28	4 $\underline{x8}$ 32
8	4 $\underline{x9}$ 36	4 $\underline{x10}$ 40	5 $\underline{x4}$ 20	6 $\underline{x4}$ 24	7 $\underline{x4}$ 28	8 $\underline{x4}$ 32	9 $\underline{x4}$ 36	10 $\underline{x4}$ 40	5 $\underline{x5}$ 25	5 $\underline{x6}$ 30	5 $\underline{x7}$ 35
9	5 $\underline{x8}$ 40	5 $\underline{x9}$ 45	5 $\underline{x10}$ 50	6 $\underline{x5}$ 30	7 $\underline{x5}$ 35	8 $\underline{x5}$ 40	9 $\underline{x5}$ 45	10 $\underline{x5}$ 50	6 $\underline{x6}$ 36	6 $\underline{x7}$ 42	6 $\underline{x8}$ 48
10	6 $\underline{x9}$ 54	6 $\underline{x10}$ 60	7 $\underline{x6}$ 42	8 $\underline{x6}$ 48	9 $\underline{x6}$ 54	10 $\underline{x6}$ 60	7 $\underline{x7}$ 49	7 $\underline{x8}$ 56	7 $\underline{x9}$ 63	7 $\underline{x10}$ 70	8 $\underline{x7}$ 56
11	9 $\underline{x7}$ 63	10 $\underline{x7}$ 70	8 $\underline{x8}$ 64	8 $\underline{x9}$ 72	8 $\underline{x10}$ 80	9 $\underline{x8}$ 72	10 $\underline{x8}$ 80	9 $\underline{x9}$ 81	9 $\underline{x10}$ 90	10 $\underline{x9}$ 90	10 $\underline{x10}$ 100



SUPERSPEED MULTIPLICATION LEVEL 2: TEST

	A	B	C	D	E	F	G	H	I	J	K
1	6 <u>x7</u>	10 <u>x3</u>	6 <u>x8</u>	10 <u>x7</u>	7 <u>x7</u>	5 <u>x9</u>	9 <u>x9</u>	8 <u>x4</u>	8 <u>x7</u>	4 <u>x6</u>	9 <u>x8</u>
2	1 <u>x0</u>	8 <u>x8</u>	7 <u>x3</u>	9 <u>x7</u>	2 <u>x10</u>	8 <u>x9</u>	9 <u>x4</u>	10 <u>x8</u>	6 <u>x2</u>	6 <u>x6</u>	1 <u>x1</u>
3	7 <u>x6</u>	4 <u>x2</u>	10 <u>x9</u>	6 <u>x4</u>	6 <u>x5</u>	10 <u>x10</u>	10 <u>x1</u>	10 <u>x8</u>	6 <u>x2</u>	2 <u>x1</u>	7 <u>x9</u>
4	4 <u>x1</u>	6 <u>x9</u>	3 <u>x4</u>	7 <u>x1</u>	2 <u>x4</u>	9 <u>x1</u>	10 <u>x1</u>	2 <u>x2</u>	2 <u>x3</u>	7 <u>x8</u>	2 <u>x5</u>
5	2 <u>x6</u>	9 <u>x3</u>	9 <u>x6</u> 54	2 <u>x9</u>	9 <u>x0</u>	3 <u>x2</u>	1 <u>x5</u>	5 <u>x2</u>	8 <u>x6</u>	7 <u>x2</u>	8 <u>x2</u>
6	9 <u>x2</u>	10 <u>x2</u>	3 <u>x3</u>	1 <u>x6</u>	0 <u>x7</u>	6 <u>x10</u>	3 <u>x7</u>	1 <u>x3</u>	3 <u>x9</u>	10 <u>x0</u>	4 <u>x3</u>
7	5 <u>x3</u>	6 <u>x3</u>	5 <u>x0</u>	8 <u>x3</u>	0 <u>x10</u>	0 <u>x3</u>	1 <u>x7</u>	4 <u>x5</u>	8 <u>x0</u>	10 <u>x6</u>	4 <u>x8</u>
8	4 <u>x9</u>	4 <u>x0</u>	5 <u>x4</u>	5 <u>x1</u>	7 <u>x4</u>	7 <u>x0</u>	3 <u>x1</u>	10 <u>x4</u>	5 <u>x5</u>	5 <u>x6</u>	5 <u>x7</u>
9	5 <u>x8</u>	0 <u>x6</u>	5 <u>x10</u>	1 <u>x9</u>	7 <u>x5</u>	8 <u>x5</u>	9 <u>x5</u>	10 <u>x5</u>	4 <u>x10</u>	6 <u>x1</u>	0 <u>x1</u>
10	0 <u>x0</u>	1 <u>x10</u>	3 <u>x8</u>	4 <u>x4</u>	3 <u>x10</u>	4 <u>x7</u>	0 <u>x2</u>	1 <u>x4</u>	2 <u>x8</u>	7 <u>x10</u>	3 <u>x5</u>
11	6 <u>x0</u>	2 <u>x0</u>	0 <u>x5</u>	0 <u>x8</u>	8 <u>x10</u>	0 <u>x4</u>	3 <u>x0</u>	3 <u>x6</u>	9 <u>x10</u>	2 <u>x7</u>	1 <u>x2</u>



SUPERSPEED MULTIPLICATION LEVEL 2: ANSWERS

	A	B	C	D	E	F	G	H	I	J	K
1	6 $\frac{x7}{42}$	10 $\frac{x3}{30}$	6 $\frac{x8}{48}$	10 $\frac{x7}{70}$	7 $\frac{x7}{49}$	5 $\frac{x9}{45}$	9 $\frac{x9}{81}$	8 $\frac{x4}{32}$	8 $\frac{x7}{56}$	4 $\frac{x6}{24}$	9 $\frac{x8}{72}$
2	1 $\frac{x0}{0}$	8 $\frac{x8}{64}$	7 $\frac{x3}{21}$	9 $\frac{x7}{63}$	2 $\frac{x10}{20}$	8 $\frac{x9}{72}$	9 $\frac{x4}{36}$	10 $\frac{x8}{80}$	6 $\frac{x2}{12}$	6 $\frac{x6}{36}$	1 $\frac{x1}{1}$
3	7 $\frac{x6}{42}$	4 $\frac{x2}{8}$	10 $\frac{x9}{90}$	6 $\frac{x4}{24}$	6 $\frac{x5}{30}$	10 $\frac{x10}{100}$	10 $\frac{x1}{10}$	10 $\frac{x8}{80}$	6 $\frac{x2}{12}$	2 $\frac{x1}{2}$	7 $\frac{x9}{63}$
4	4 $\frac{x1}{4}$	6 $\frac{x9}{54}$	3 $\frac{x4}{12}$	7 $\frac{x1}{7}$	2 $\frac{x4}{8}$	9 $\frac{x1}{9}$	10 $\frac{x1}{10}$	2 $\frac{x2}{4}$	2 $\frac{x3}{6}$	7 $\frac{x8}{56}$	2 $\frac{x5}{10}$
5	2 $\frac{x6}{12}$	9 $\frac{x3}{27}$	9 $\frac{x6}{54}$	2 $\frac{x9}{18}$	9 $\frac{x0}{0}$	3 $\frac{x2}{6}$	1 $\frac{x5}{5}$	5 $\frac{x2}{10}$	8 $\frac{x6}{48}$	7 $\frac{x2}{14}$	8 $\frac{x2}{16}$
6	9 $\frac{x2}{18}$	10 $\frac{x2}{20}$	3 $\frac{x3}{9}$	1 $\frac{x6}{6}$	0 $\frac{x7}{0}$	6 $\frac{x10}{60}$	3 $\frac{x7}{21}$	1 $\frac{x3}{3}$	3 $\frac{x9}{27}$	10 $\frac{x0}{0}$	4 $\frac{x3}{12}$
7	5 $\frac{x3}{15}$	6 $\frac{x3}{18}$	5 $\frac{x0}{0}$	8 $\frac{x3}{24}$	0 $\frac{x10}{0}$	0 $\frac{x3}{0}$	1 $\frac{x7}{7}$	4 $\frac{x5}{20}$	8 $\frac{x0}{0}$	10 $\frac{x6}{60}$	4 $\frac{x8}{32}$
8	4 $\frac{x9}{36}$	4 $\frac{x0}{0}$	5 $\frac{x4}{20}$	5 $\frac{x1}{5}$	7 $\frac{x4}{28}$	7 $\frac{x0}{0}$	3 $\frac{x1}{3}$	10 $\frac{x4}{40}$	5 $\frac{x5}{25}$	5 $\frac{x6}{30}$	5 $\frac{x7}{35}$
9	5 $\frac{x8}{40}$	0 $\frac{x6}{0}$	5 $\frac{x10}{50}$	1 $\frac{x9}{9}$	7 $\frac{x5}{35}$	8 $\frac{x5}{40}$	9 $\frac{x5}{45}$	10 $\frac{x5}{50}$	4 $\frac{x10}{40}$	6 $\frac{x1}{6}$	0 $\frac{x1}{0}$
10	0 $\frac{x0}{0}$	1 $\frac{x10}{10}$	3 $\frac{x8}{24}$	4 $\frac{x4}{16}$	3 $\frac{x10}{30}$	4 $\frac{x7}{28}$	0 $\frac{x2}{0}$	1 $\frac{x4}{4}$	2 $\frac{x8}{16}$	7 $\frac{x10}{70}$	3 $\frac{x5}{15}$
11	6 $\frac{x0}{0}$	2 $\frac{x0}{0}$	0 $\frac{x5}{0}$	0 $\frac{x8}{0}$	8 $\frac{x10}{80}$	0 $\frac{x4}{0}$	3 $\frac{x0}{0}$	3 $\frac{x6}{18}$	9 $\frac{x10}{90}$	2 $\frac{x7}{14}$	1 $\frac{x2}{2}$



SUPERSPEED DIVISION LEVEL 1: TEST

	A	B	C	D	E	F	G	H	I	J
1	$1/1 =$	$2/1 =$	$3/1 =$	$4/1 =$	$5/1 =$	$6/1 =$	$7/1 =$	$8/1 =$	$9/1 =$	$10/1 =$
2	$2/2 =$	$4/2 =$	$6/2 =$	$8/2 =$	$10/2 =$	$12/2 =$	$14/2 =$	$16/2 =$	$18/2 =$	$20/2 =$
3	$3/3 =$	$6/3 =$	$9/3 =$	$12/3 =$	$15/3 =$	$18/3 =$	$21/3 =$	$24/3 =$	$27/3 =$	$30/3 =$
4	$4/4 =$	$8/4 =$	$12/4 =$	$16/4 =$	$20/4 =$	$24/4 =$	$28/4 =$	$32/4 =$	$36/4 =$	$40/4 =$
5	$5/5 =$	$10/5 =$	$15/5 =$	$20/5 =$	$25/5 =$	$30/5 =$	$35/5 =$	$40/5 =$	$45/5 =$	$50/5 =$
6	$6/6 =$	$12/6 =$	$18/6 =$	$24/6 =$	$30/6 =$	$36/6 =$	$42/6 =$	$48/6 =$	$54/6 =$	$60/6 =$
7	$7/7 =$	$14/7 =$	$21/7 =$	$28/7 =$	$35/7 =$	$42/7 =$	$49/7 =$	$56/7 =$	$63/7 =$	$70/7 =$
8	$8/8 =$	$16/8 =$	$24/8 =$	$32/8 =$	$40/8 =$	$48/8 =$	$56/8 =$	$64/8 =$	$72/8 =$	$80/8 =$
9	$9/9 =$	$18/9 =$	$27/9 =$	$36/9 =$	$45/9 =$	$54/9 =$	$63/9 =$	$72/9 =$	$81/9 =$	$90/9 =$
10	$10/10 =$	$20/10 =$	$30/10 =$	$40/10 =$	$50/10 =$	$60/10 =$	$70/10 =$	$80/10 =$	$90/10 =$	$100/10 =$



SUPERSPEED DIVISION LEVEL 1: ANSWERS

	A	B	C	D	E	F	G	H	I	J
1	$1/1 =$ 1	$2/1 =$ 2	$3/1 =$ 3	$4/1 =$ 4	$5/1 =$ 5	$6/1 =$ 6	$7/1 =$ 7	$8/1 =$ 8	$9/1 =$ 9	$10/1 =$ 10
2	$2/2 =$ 1	$4/2 =$ 2	$6/2 =$ 3	$8/2 =$ 4	$10/2 =$ 5	$12/2 =$ 6	$14/2 =$ 7	$16/2 =$ 8	$18/2 =$ 9	$20/2 =$ 10
3	$3/3 =$ 1	$6/3 =$ 2	$9/3 =$ 3	$12/3 =$ 4	$15/3 =$ 5	$18/3 =$ 6	$21/3 =$ 7	$24/3 =$ 8	$27/3 =$ 9	$30/3 =$ 10
4	$4/4 =$ 1	$8/4 =$ 2	$12/4 =$ 3	$16/4 =$ 4	$20/4 =$ 5	$24/4 =$ 6	$28/4 =$ 7	$32/4 =$ 8	$36/4 =$ 9	$40/4 =$ 10
5	$5/5 =$ 1	$10/5 =$ 2	$15/5 =$ 3	$20/5 =$ 4	$25/5 =$ 5	$30/5 =$ 6	$35/5 =$ 7	$40/5 =$ 8	$45/5 =$ 9	$50/5 =$ 10
6	$6/6 =$ 1	$12/6 =$ 2	$18/6 =$ 3	$24/6 =$ 4	$30/6 =$ 5	$36/6 =$ 6	$42/6 =$ 7	$48/6 =$ 8	$54/6 =$ 9	$60/6 =$ 10
7	$7/7 =$ 1	$14/7 =$ 2	$21/7 =$ 3	$28/7 =$ 4	$35/7 =$ 5	$42/7 =$ 6	$49/7 =$ 7	$56/7 =$ 8	$63/7 =$ 9	$70/7 =$ 10
8	$8/8 =$ 1	$16/8 =$ 2	$24/8 =$ 3	$32/8 =$ 4	$40/8 =$ 5	$48/8 =$ 6	$56/8 =$ 7	$64/8 =$ 8	$72/8 =$ 9	$80/8 =$ 10
9	$9/9 =$ 1	$18/9 =$ 2	$27/9 =$ 3	$36/9 =$ 4	$45/9 =$ 5	$54/9 =$ 6	$63/9 =$ 7	$72/9 =$ 8	$81/9 =$ 9	$90/9 =$ 10
10	$10/10 =$ 1	$20/10 =$ 2	$30/10 =$ 3	$40/10 =$ 4	$50/10 =$ 5	$60/10 =$ 6	$70/10 =$ 7	$80/10 =$ 8	$90/10 =$ 9	$100/10 =$ 10



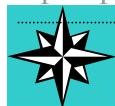
SUPERSPEED DIVISION LEVEL 2: TEST

	A	B	C	D	E	F	G	H	I	J
1	$36/6=$	$15/5=$	$48/8=$	$45/9=$	$49/7=$	$27/9=$	$48/6=$	$12/4=$	$54/6=$	$2/1 =$
2	$18/6=$	$42/7=$	$8/8=$	$56/8=$	$50/10=$	$42/6=$	$80/10=$	$56/7=$	$25/5=$	$63/7=$
3	$64/8=$	$10/5=$	$72/8=$	$12/2=$	$54/9=$	$40/5=$	$63/9=$	$9/3=$	$72/9=$	$24/6=$
4	$100/10=$	$36/9=$	$14/7=$	$40/8=$	$1/1 =$	$10/2=$	$12/3=$	$6/1 =$	$20/5=$	$81/9=$
5	$24/4=$	$6/3=$	$30/6=$	$9/1 =$	$35/7=$	$32/8=$	$5/1 =$	$45/5=$	$24/8=$	$28/4=$
6	$7/7=$	$30/10=$	$14/2=$	$8/2 =$	$10/10=$	$4/1 =$	$21/3=$	$32/4=$	$36/4=$	$24/3=$
7	$7/1 =$	$27/3=$	$2/2 =$	$15/3=$	$50/5=$	$28/7=$	$6/2 =$	$16/4=$	$40/10=$	$18/9=$
8	$70/7=$	$90/10=$	$60/10=$	$16/8=$	$3/1 =$	$90/9=$	$6/6=$	$35/5=$	$16/2=$	$10/1=$
9	$18/2=$	$40/4=$	$30/3=$	$4/2 =$	$21/7=$	$9/9=$	$60/6=$	$70/10=$	$80/8=$	$30/5=$
10	$12/6=$	$20/10=$	$18/3=$	$5/5=$	$20/4=$	$3/3=$	$8/4=$	$8/1 =$	$4/4=$	$20/2=$



SUPERSPEED DIVISION LEVEL 2: ANSWERS

	A	B	C	D	E	F	G	H	I	J
1	$36/6=$ 6	$15/5=$ 3	$48/8=$ 6	$45/9=$ 5	$49/7=$ 7	$27/9=$ 3	$48/6=$ 8	$12/4=$ 3	$54/6=$ 9	$2/1 =$ 2
2	$18/6=$ 3	$42/7=$ 6	$8/8=$ 1	$56/8=$ 7	$50/10=$ 5	$42/6=$ 7	$80/10=$ 8	$56/7=$ 8	$25/5=$ 5	$63/7=$ 9
3	$64/8=$ 8	$10/5=$ 2	$72/8=$ 9	$12/2=$ 6	$54/9=$ 6	$40/5=$ 8	$63/9=$ 7	$9/3=$ 3	$72/9=$ 8	$24/6=$ 4
4	$100/10=$ 10	$36/9=$ 4	$14/7=$ 2	$40/8=$ 5	$1/1 =$ 1	$10/2=$ 5	$12/3=$ 4	$6/1 =$ 6	$20/5=$ 4	$81/9=$ 9
5	$24/4=$ 6	$6/3=$ 2	$30/6=$ 5	$9/1 =$ 9	$35/7=$ 5	$32/8=$ 4	$5/1 =$ 5	$45/5=$ 9	$24/8=$ 3	$28/4=$ 7
6	$7/7=$ 1	$30/10=$ 3	$14/2=$ 7	$8/2 =$ 4	$10/10=$ 1	$4/1 =$ 4	$21/3=$ 7	$32/4=$ 8	$36/4=$ 9	$24/3=$ 8
7	$7/1 =$ 7	$27/3=$ 9	$2/2 =$ 1	$15/3=$ 5	$50/5=$ 10	$28/7=$ 4	$6/2 =$ 3	$16/4=$ 4	$40/10=$ 4	$18/9=$ 2
8	$70/7=$ 10	$90/10=$ 9	$60/10=$ 6	$16/8=$ 2	$3/1 =$ 3	$90/9=$ 10	$6/6=$ 1	$35/5=$ 7	$16/2=$ 8	$10/1=$ 10
9	$18/2=$ 9	$40/4=$ 10	$30/3=$ 10	$4/2 =$ 2	$21/7=$ 3	$9/9=$ 1	$60/6=$ 10	$70/10=$ 7	$80/8=$ 10	$30/5=$ 6
10	$12/6=$ 2	$20/10=$ 2	$18/3=$ 6	$5/5=$ 1	$20/4=$ 5	$3/3=$ 1	$8/4=$ 2	$8/1 =$ 8	$4/4=$ 1	$20/2=$ 10



SUPERSPEED GNARLIES LEVEL 1: TEST

	A	B	C	D	E	F	G	H	I	J
1	5 <u>+8</u>	8 <u>+5</u>	8 <u>+6</u>	7 <u>+6</u>	9 <u>+6</u>	6 <u>+8</u>	7 <u>+9</u>	9 <u>+7</u>	7 <u>+8</u>	9 <u>+8</u>
2	6 <u>+9</u>	6 <u>+7</u>	8 <u>+9</u>	7 <u>+9</u>	8 <u>+5</u>	8 <u>+7</u>	9 <u>+8</u>	9 <u>+7</u>	9 <u>+9</u>	6 <u>+7</u>
3	17 <u>-8</u>	16 <u>-9</u>	16 <u>-7</u>	15 <u>-9</u>	12 <u>-8</u>	15 <u>-7</u>	13 <u>-8</u>	14 <u>-9</u>	14 <u>-8</u>	15 <u>-8</u>
4	19 <u>-7</u>	19 <u>-6</u>	18 <u>-9</u>	20 <u>-8</u>	20 <u>-6</u>	17 <u>-9</u>	15 <u>-6</u>	14 <u>-8</u>	18 <u>-6</u>	20 <u>-7</u>
5	17 <u>-8</u>	16 <u>-9</u>	16 <u>-7</u>	15 <u>-9</u>	15 <u>-7</u>	19 <u>-7</u>	19 <u>-6</u>	18 <u>-9</u>	20 <u>-6</u>	15 <u>-8</u>
6	9 <u>x6</u>	9 <u>x7</u>	6 <u>x9</u>	9 <u>x8</u>	9 <u>x9</u>	6 <u>x6</u>	8 <u>x9</u>	7 <u>x7</u>	7 <u>x8</u>	8 <u>x9</u>
7	7 <u>x6</u>	6 <u>x9</u>	8 <u>x6</u>	9 <u>x8</u>	9 <u>x9</u>	6 <u>x6</u>	8 <u>x7</u>	6 <u>x7</u>	8 <u>x9</u>	7 <u>x9</u>
8	8 <u>x8</u>	9 <u>x7</u>	8 <u>x9</u>	7 <u>x7</u>	7 <u>x8</u>	7 <u>x9</u>	6 <u>x8</u>	9 <u>x6</u>	9 <u>x7</u>	6 <u>x9</u>
9	48/8=	56/7=	54/9=	81/9=	63/7=	42/6=	54/6=	72/9=	63/7=	42/7=
10	48/8=	42/7=	49/7=	56/7=	63/7=	56/7=	54/6=	48/8=	48/6=	72/9=
11	48/8=	54/9=	63/9=	72/9=	81/9=	49/7=	56/7=	63/7=	42/6=	36/6=



SUPERSPEED GNARLIES LEVEL 1: ANSWERS

	A	B	C	D	E	F	G	H	I	J
1	5 +8 13	8 +5 13	8 +6 14	7 +6 13	9 +6 15	6 +8 14	7 +9 16	9 +7 16	7 +8 15	9 +8 17
2	6 +9 15	6 +7 13	8 +9 17	7 +9 16	8 +5 13	8 +7 15	9 +8 17	9 +7 16	9 +9 18	6 +7 13
3	17 -8 9	16 -9 7	16 -7 9	15 -9 6	12 -8 4	15 -7 8	13 -8 5	14 -9 5	14 -8 6	15 -8 7
4	19 -7 12	19 -6 13	18 -9 9	20 -8 12	20 -6 14	17 -9 8	15 -6 9	14 -8 6	18 -6 12	20 -7 13
5	17 -8 9	16 -9 7	16 -7 9	15 -9 6	15 -7 8	19 -7 12	19 -6 13	18 -9 9	20 -6 14	15 -8 7
6	9 $\times 6$ 54	9 $\times 7$ 63	6 $\times 9$ 54	9 $\times 8$ 72	9 $\times 9$ 81	6 $\times 6$ 36	8 $\times 9$ 72	7 $\times 7$ 49	7 $\times 8$ 56	8 $\times 9$ 72
7	7 $\times 6$ 42	6 $\times 9$ 54	8 $\times 6$ 48	9 $\times 8$ 72	9 $\times 9$ 81	6 $\times 6$ 36	8 $\times 7$ 56	6 $\times 7$ 42	8 $\times 9$ 72	7 $\times 9$ 63
8	8 $\times 8$ 64	9 $\times 7$ 63	8 $\times 9$ 72	7 $\times 7$ 49	7 $\times 8$ 56	7 $\times 9$ 63	6 $\times 8$ 48	9 $\times 6$ 54	9 $\times 7$ 63	6 $\times 9$ 54
9	48/8= 6	56/7= 8	54/9= 6	81/9= 9	63/7= 9	42/6= 7	54/6= 9	72/9= 8	63/7= 9	42/7= 6
10	48/8= 6	42/7= 6	49/7= 7	56/7= 8	63/7= 9	56/7= 8	54/6= 9	48/8= 6	48/6= 8	72/9= 8
11	48/8= 6	54/9= 6	63/9= 7	72/9= 8	81/9= 9	49/7= 7	56/7= 8	63/7= 9	42/6= 7	36/6= 6



SUPERSPEED GNARLIES LEVEL 2: TEST

	A	B	C	D	E	F	G	H	I	J
1	6 <u>x9</u>	15 <u>-9</u>	81/9=	9 <u>x9</u>	9 <u>+8</u>	6 <u>x9</u>	18 <u>-9</u>	56/7=	7 <u>x7</u>	8 <u>+6</u>
2	9 <u>x7</u>	42/6=	20 <u>-8</u>	8 <u>x9</u>	15 <u>-7</u>	7 <u>+9</u>	7 <u>x8</u>	54/9=	9 <u>x8</u>	6 <u>x9</u>
3	54/6=	48/8=	48/6=	72/9=	6 <u>x6</u>	15 <u>-6</u>	9 <u>x8</u>	9 <u>x9</u>	9 <u>+6</u>	6 <u>+8</u>
4	17 <u>-8</u>	16 <u>-9</u>	16 <u>-7</u>	48/8=	42/7=	19 <u>-6</u>	8 <u>+5</u>	6 <u>+9</u>	8 <u>+5</u>	8 <u>+7</u>
5	8 <u>x7</u>	6 <u>x7</u>	8 <u>x9</u>	7 <u>x9</u>	7 <u>+6</u>	8 <u>x9</u>	49/7=	17 <u>-8</u>	12 <u>-8</u>	15 <u>-7</u>
6	14 <u>-8</u>	7 <u>x8</u>	9 <u>x6</u>	81/9=	49/7=	56/7=	63/7=	19 <u>-7</u>	20 <u>-6</u>	17 <u>-9</u>
7	18 <u>-6</u>	63/7=	7 <u>x6</u>	48/8=	7 <u>x9</u>	6 <u>x8</u>	9 <u>+7</u>	15 <u>-8</u>	9 <u>+8</u>	19 <u>-7</u>
8	20 <u>-6</u>	63/7=	8 <u>x8</u>	5 <u>+8</u>	56/7=	8 <u>+9</u>	9 <u>+7</u>	20 <u>-7</u>	6 <u>+7</u>	18 <u>-9</u>
9	9 <u>x6</u>	9 <u>x7</u>	54/6=	72/9=	63/7=	42/7=	14 <u>-9</u>	15 <u>-8</u>	7 <u>+9</u>	7 <u>x7</u>
10	56/7=	54/9=	6 <u>+7</u>	42/6=	36/6=	9 <u>+9</u>	14 <u>-8</u>	8 <u>x9</u>	63/9=	72/9=
11	8 <u>x6</u>	9 <u>x7</u>	56/7=	6 <u>x6</u>	16 <u>-7</u>	16 <u>-9</u>	15 <u>-9</u>	13 <u>-8</u>	48/8=	7 <u>+8</u>



SUPERSPEED GNARLIES LEVEL 2: ANSWERS

	A	B	C	D	E	F	G	H	I	J
1	$\begin{array}{r} 6 \\ \times 9 \\ \hline 54 \end{array}$	$\begin{array}{r} 15 \\ -9 \\ \hline 6 \end{array}$	$81/9=$ 9	$\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \end{array}$	$\begin{array}{r} 9 \\ +8 \\ \hline 17 \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline 54 \end{array}$	$\begin{array}{r} 18 \\ -9 \\ \hline 9 \end{array}$	$56/7=$ 8	$\begin{array}{r} 7 \\ \times 7 \\ \hline 49 \end{array}$	$\begin{array}{r} 8 \\ +6 \\ \hline 14 \end{array}$
2	$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$	$42/6=$ 7	$\begin{array}{r} 20 \\ -8 \\ \hline 12 \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$	$\begin{array}{r} 15 \\ -7 \\ \hline 8 \end{array}$	$\begin{array}{r} 7 \\ +9 \\ \hline 16 \end{array}$	$\begin{array}{r} 7 \\ \times 8 \\ \hline 56 \end{array}$	$54/9=$ 6	$\begin{array}{r} 9 \\ \times 8 \\ \hline 72 \end{array}$	$\begin{array}{r} 6 \\ \times 9 \\ \hline 54 \end{array}$
3	$54/6=$ 9	$48/8=$ 6	$48/6=$ 8	$72/9=$ 8	$\begin{array}{r} 6 \\ \times 6 \\ \hline 36 \end{array}$	$\begin{array}{r} 15 \\ -6 \\ \hline 9 \end{array}$	$\begin{array}{r} 9 \\ \times 8 \\ \hline 72 \end{array}$	9 $\begin{array}{r} 9 \\ \times 9 \\ \hline 81 \end{array}$	9 $\begin{array}{r} +6 \\ \hline 15 \end{array}$	6 $\begin{array}{r} +8 \\ \hline 14 \end{array}$
4	$\begin{array}{r} 17 \\ -8 \\ \hline 9 \end{array}$	$\begin{array}{r} 16 \\ -9 \\ \hline 7 \end{array}$	$\begin{array}{r} 16 \\ -7 \\ \hline 9 \end{array}$	$48/8=$ 6	$42/7=$ 6	$\begin{array}{r} 19 \\ -6 \\ \hline 13 \end{array}$	$\begin{array}{r} 8 \\ +5 \\ \hline 13 \end{array}$	6 $\begin{array}{r} +9 \\ \hline 15 \end{array}$	8 $\begin{array}{r} +5 \\ \hline 13 \end{array}$	8 $\begin{array}{r} +7 \\ \hline 15 \end{array}$
5	$\begin{array}{r} 8 \\ \times 7 \\ \hline 56 \end{array}$	$\begin{array}{r} 6 \\ \times 7 \\ \hline 42 \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$	$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$	$\begin{array}{r} 7 \\ +6 \\ \hline 13 \end{array}$	$\begin{array}{r} 8 \\ \times 9 \\ \hline 72 \end{array}$	$49/7=$ 7	$\begin{array}{r} 17 \\ -8 \\ \hline 9 \end{array}$	12 $\begin{array}{r} -8 \\ \hline 4 \end{array}$	15 $\begin{array}{r} -7 \\ \hline 8 \end{array}$
6	$\begin{array}{r} 14 \\ -8 \\ \hline 6 \end{array}$	$\begin{array}{r} 7 \\ \times 8 \\ \hline 56 \end{array}$	$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$	$81/9=$ 9	$49/7=$ 7	$56/7=$ 8	$63/7=$ 9	$\begin{array}{r} 19 \\ -7 \\ \hline 12 \end{array}$	20 $\begin{array}{r} -6 \\ \hline 14 \end{array}$	17 $\begin{array}{r} -9 \\ \hline 8 \end{array}$
7	$\begin{array}{r} 18 \\ -6 \\ \hline 12 \end{array}$	$63/7=$ 9	$\begin{array}{r} 7 \\ \times 6 \\ \hline 42 \end{array}$	$48/8=$ 6	$\begin{array}{r} 7 \\ \times 9 \\ \hline 63 \end{array}$	$\begin{array}{r} 6 \\ \times 8 \\ \hline 48 \end{array}$	$\begin{array}{r} 9 \\ +7 \\ \hline 16 \end{array}$	$\begin{array}{r} 15 \\ -8 \\ \hline 7 \end{array}$	9 $\begin{array}{r} +8 \\ \hline 17 \end{array}$	19 $\begin{array}{r} -7 \\ \hline 12 \end{array}$
8	$\begin{array}{r} 20 \\ -6 \\ \hline 14 \end{array}$	$63/7=$ 9	$\begin{array}{r} 8 \\ \times 8 \\ \hline 64 \end{array}$	5 $\begin{array}{r} +8 \\ \hline 13 \end{array}$	$56/7=$ 8	$\begin{array}{r} 8 \\ +9 \\ \hline 17 \end{array}$	$\begin{array}{r} 9 \\ +7 \\ \hline 16 \end{array}$	20 $\begin{array}{r} -7 \\ \hline 13 \end{array}$	6 $\begin{array}{r} +7 \\ \hline 13 \end{array}$	18 $\begin{array}{r} -9 \\ \hline 9 \end{array}$
9	$\begin{array}{r} 9 \\ \times 6 \\ \hline 54 \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$	$54/6=$ 9	$72/9=$ 8	$63/7=$ 9	$42/7=$ 6	$\begin{array}{r} 14 \\ -9 \\ \hline 5 \end{array}$	15 $\begin{array}{r} -8 \\ \hline 7 \end{array}$	7 $\begin{array}{r} +9 \\ \hline 16 \end{array}$	7 $\begin{array}{r} \times 7 \\ \hline 49 \end{array}$
10	$56/7=$ 8	$54/9=$ 6	$\begin{array}{r} 6 \\ +7 \\ \hline 13 \end{array}$	$42/6=$ 7	$36/6=$ 6	$\begin{array}{r} 9 \\ +9 \\ \hline 18 \end{array}$	$\begin{array}{r} 14 \\ -8 \\ \hline 6 \end{array}$	8 $\begin{array}{r} \times 9 \\ \hline 72 \end{array}$	$63/9=$ 7	$72/9=$ 8
11	$\begin{array}{r} 8 \\ \times 6 \\ \hline 48 \end{array}$	$\begin{array}{r} 9 \\ \times 7 \\ \hline 63 \end{array}$	$56/7=$ 8	$\begin{array}{r} 6 \\ \times 6 \\ \hline 36 \end{array}$	$\begin{array}{r} 16 \\ -7 \\ \hline 9 \end{array}$	$\begin{array}{r} 16 \\ -9 \\ \hline 7 \end{array}$	$\begin{array}{r} 15 \\ -9 \\ \hline 6 \end{array}$	13 $\begin{array}{r} -8 \\ \hline 5 \end{array}$	$48/8=$ 6	7 $\begin{array}{r} +8 \\ \hline 15 \end{array}$

SuperSpeed Fractions: Level 1: Test

	A	B	C	D	E	F	G	H	I	J
1	$\frac{1}{1}$	$\frac{2}{1}$	$\frac{3}{1}$	$\frac{4}{1}$	$\frac{5}{1}$	$\frac{6}{1}$	$\frac{7}{1}$	$\frac{8}{1}$	$\frac{9}{1}$	$\frac{10}{1}$
2	$\frac{1}{2}$	$\frac{2}{2}$	$\frac{3}{2}$	$\frac{4}{2}$	$\frac{5}{2}$	$\frac{6}{2}$	$\frac{7}{2}$	$\frac{8}{2}$	$\frac{9}{2}$	$\frac{10}{2}$
3	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{3}{3}$	$\frac{4}{3}$	$\frac{5}{3}$	$\frac{6}{3}$	$\frac{7}{3}$	$\frac{8}{3}$	$\frac{9}{3}$	$\frac{10}{3}$
4	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$	$\frac{5}{4}$	$\frac{6}{4}$	$\frac{7}{4}$	$\frac{8}{4}$	$\frac{9}{4}$	$\frac{10}{4}$
5	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	$\frac{5}{5}$	$\frac{6}{5}$	$\frac{7}{5}$	$\frac{8}{5}$	$\frac{9}{5}$	$\frac{10}{5}$
6	$\frac{1}{6}$	$\frac{2}{6}$	$\frac{3}{6}$	$\frac{4}{6}$	$\frac{5}{6}$	$\frac{6}{6}$	$\frac{7}{6}$	$\frac{8}{6}$	$\frac{9}{6}$	$\frac{10}{6}$
7	$\frac{1}{7}$	$\frac{2}{7}$	$\frac{3}{7}$	$\frac{4}{7}$	$\frac{5}{7}$	$\frac{6}{7}$	$\frac{7}{7}$	$\frac{8}{7}$	$\frac{9}{7}$	$\frac{10}{7}$
8	$\frac{1}{8}$	$\frac{2}{8}$	$\frac{3}{8}$	$\frac{4}{8}$	$\frac{5}{8}$	$\frac{6}{8}$	$\frac{7}{8}$	$\frac{8}{8}$	$\frac{9}{8}$	$\frac{10}{8}$
9	$\frac{1}{9}$	$\frac{2}{9}$	$\frac{3}{9}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{6}{9}$	$\frac{7}{9}$	$\frac{8}{9}$	$\frac{9}{9}$	$\frac{10}{9}$
10	$\frac{1}{10}$	$\frac{2}{10}$	$\frac{3}{10}$	$\frac{4}{10}$	$\frac{5}{10}$	$\frac{6}{10}$	$\frac{7}{10}$	$\frac{8}{10}$	$\frac{9}{10}$	$\frac{10}{10}$

SuperSpeed Fractions: Level 1: Answers

	A	B	C	D	E	F	G	H	I	J
1	1	2	3	4	5	6	7	8	9	10
2	$\frac{1}{2}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5
3	$\frac{1}{3}$	$\frac{2}{3}$	1	$1\frac{1}{3}$	$1\frac{2}{3}$	2	$2\frac{1}{3}$	$2\frac{2}{3}$	3	$3\frac{1}{3}$
4	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
5	$\frac{1}{5}$	$\frac{2}{5}$	$\frac{3}{5}$	$\frac{4}{5}$	1	$1\frac{1}{5}$	$1\frac{2}{5}$	$1\frac{3}{5}$	$1\frac{4}{5}$	2
6	$\frac{1}{6}$	$\frac{1}{3}$	$\frac{1}{2}$	$\frac{2}{3}$	$\frac{5}{6}$	1	$1\frac{1}{6}$	$1\frac{1}{3}$	$1\frac{1}{2}$	$1\frac{2}{3}$
7	$\frac{1}{7}$	$\frac{2}{7}$	$\frac{3}{7}$	$\frac{4}{7}$	$\frac{5}{7}$	$\frac{6}{7}$	1	$1\frac{1}{7}$	$1\frac{2}{7}$	$1\frac{3}{7}$
8	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$
9	$\frac{1}{9}$	$\frac{2}{9}$	$\frac{1}{3}$	$\frac{4}{9}$	$\frac{5}{9}$	$\frac{2}{3}$	$\frac{7}{9}$	$\frac{8}{9}$	1	$1\frac{1}{9}$
10	$\frac{1}{10}$	$\frac{1}{5}$	$\frac{3}{10}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{3}{5}$	$\frac{7}{10}$	$\frac{4}{5}$	$\frac{9}{10}$	1

SuperSpeed Fractions: Level 2: Test

	A	B	C	D	E	F	G	H	I	J
1	$\frac{4}{3}$	$\frac{7}{2}$	$\frac{8}{9}$	$\frac{6}{4}$	$\frac{10}{3}$	$\frac{8}{4}$	$\frac{5}{9}$	$\frac{9}{8}$	$\frac{7}{6}$	$\frac{10}{8}$
2	$\frac{5}{3}$	$\frac{4}{10}$	$\frac{7}{9}$	$\frac{4}{6}$	$\frac{5}{2}$	$\frac{6}{2}$	$\frac{1}{10}$	$\frac{6}{10}$	$\frac{9}{2}$	$\frac{6}{9}$
3	$\frac{5}{6}$	$\frac{3}{6}$	$\frac{2}{8}$	$\frac{3}{9}$	$\frac{1}{2}$	$\frac{6}{3}$	$\frac{10}{1}$	$\frac{8}{3}$	$\frac{10}{9}$	$\frac{7}{3}$
4	$\frac{2}{6}$	$\frac{2}{3}$	$\frac{3}{7}$	$\frac{2}{9}$	$\frac{4}{7}$	$\frac{2}{10}$	$\frac{7}{4}$	$\frac{6}{1}$	$\frac{9}{4}$	$\frac{10}{7}$
5	$\frac{4}{8}$	$\frac{8}{10}$	$\frac{7}{1}$	$\frac{4}{5}$	$\frac{9}{7}$	$\frac{6}{5}$	$\frac{7}{5}$	$\frac{5}{10}$	$\frac{9}{5}$	$\frac{10}{5}$
6	$\frac{1}{6}$	$\frac{3}{8}$	$\frac{2}{7}$	$\frac{4}{2}$	$\frac{1}{3}$	$\frac{8}{5}$	$\frac{9}{1}$	$\frac{1}{7}$	$\frac{9}{6}$	$\frac{10}{6}$
7	$\frac{8}{7}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{5}{4}$	$\frac{6}{8}$	$\frac{6}{7}$	$\frac{10}{10}$	$\frac{8}{6}$	$\frac{5}{5}$	$\frac{10}{4}$
8	$\frac{1}{8}$	$\frac{3}{3}$	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{5}{8}$	$\frac{5}{7}$	$\frac{7}{8}$	$\frac{8}{8}$	$\frac{8}{1}$	$\frac{5}{1}$
9	$\frac{3}{1}$	$\frac{4}{4}$	$\frac{1}{1}$	$\frac{4}{9}$	$\frac{3}{5}$	$\frac{10}{2}$	$\frac{3}{2}$	$\frac{1}{9}$	$\frac{7}{10}$	$\frac{9}{3}$
10	$\frac{2}{1}$	$\frac{4}{1}$	$\frac{3}{10}$	$\frac{2}{2}$	$\frac{6}{6}$	$\frac{8}{2}$	$\frac{9}{9}$	$\frac{2}{5}$	$\frac{9}{10}$	$\frac{7}{7}$

SuperSpeed Fractions: Level 2: Answers

	A	B	C	D	E	F	G	H	I	J
1	1 1/3	3 1/2	$\frac{8}{9}$	1 1/2	3 1/3	2	$\frac{5}{9}$	1 1/8	1 1/6	1 1/4
2	1 2/3	$\frac{2}{5}$	$\frac{7}{9}$	$\frac{2}{3}$	2 1/2	3	$\frac{1}{10}$	$\frac{3}{5}$	4 1/2	$\frac{2}{3}$
3	$\frac{5}{6}$	$\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{1}{2}$	2	10	2 2/3	1 1/9	2 1/3
4	$\frac{1}{3}$	$\frac{2}{3}$	$\frac{3}{7}$	$\frac{2}{9}$	$\frac{4}{7}$	$\frac{1}{5}$	1 3/4	6	2 1/4	1 3/7
5	$\frac{1}{2}$	$\frac{4}{5}$	7	$\frac{4}{5}$	1 2/7	1 1/5	1 2/5	$\frac{1}{2}$	1 4/5	2
6	$\frac{1}{6}$	$\frac{3}{8}$	$\frac{2}{7}$	2	$\frac{1}{3}$	1 3/5	9	$\frac{1}{7}$	1 1/2	1 2/3
7	1 1/7	$\frac{1}{2}$	$\frac{3}{4}$	1 1/4	$\frac{3}{4}$	$\frac{6}{7}$	1	1 1/3	1	2 1/2
8	$\frac{1}{8}$	1	$\frac{1}{4}$	$\frac{1}{5}$	$\frac{5}{8}$	$\frac{5}{7}$	$\frac{7}{8}$	1	8	5
9	3	1	1	$\frac{4}{9}$	$\frac{3}{5}$	5	1 1/2	$\frac{1}{9}$	$\frac{7}{10}$	3
10	2	4	$\frac{3}{10}$	1	1	4	1	$\frac{2}{5}$	$\frac{9}{10}$	1



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